weeks before an ulcer had appeared in his right temporal region. Under the influence of some simple domestic means it began to heal in three weeks or so, During the cicatrization the man commenced to experience pain about his face, while, a couple of days later, there supervened severe trismus, dysphagia and paralysis of the right facial nerve. All other muscles of his body remained intact. Some improvement followed the use of bromide of potassium in large doses; hence the author hopes that the case will terminate favorably. International literature is said to contain only 17 similar cases, with 5 recoveries. In all but two the symptomatology was identical with that of Maisüriantz's case, while in Thaden's the upper limbs were simultaneously affected, and in Hadlich's general spasms supervened.—*Proceedings of the Caucasian Medical Soeiety*, No. 8, 1887-88.

VALERIUS IDELSON (Berne).

V. The Technique and Value of Transplantation of Mucous membrane. By A. WOELFLER (Graz). In the human subject the functional integrity of a part is endangered by the presence of extensive cicatrices, or their production by excision. The excision of a cicatrix without union of the wounded edges of the part causes a repetition of the disturbances with the appearance of a new cicatrix. This is especially true of the mucous membranes of the mouth, œsophagus, rectum, urethra and eyelids. Woelfler has endeavored to remedy the defects in mucous membranes caused by excision as removal of cicatrices with mucous membrane. This end was obtained by the transplantation of mucous membrane from the human subject. The mucous membrane was removed from either a prolapsus uterus or rectum in strips of 3–4 cm. × 1–3 cm. The method was similar to that followed by Thiersch with the epidermis. Adhesion occurred with the same certainty as in the case of the skin. This was especially true if the mucous membrane was taken from young subjects and placed on wounds three or four days old. Later on the mucous membrane was transplanted from animals to the human subject. The mucous membrane of the stomach of a frog, the œsophagus of the pigeon, and rabbit, the mucous membrane of the bladder of the rabbit were found available. All these allowed of easy separation from their muscularis and united with the wound in their whole extent. It is not yet established how resistant the animal mucous membrane is as compared to that of the human subject. Its union when transplanted is well established. The author has performed transplantation of mucous membrane in seven cases. as follows:

1. In three cases of impermeable stricture of the urethra external urethrotomy was performed, the callus excised after the manner of a tumor, and with it the diseased urethra. The surface of the wound was covered after the fourth or fifth day with transplanted mucous membrane. A retained catheter was introduced either through the external meatus or the central opening in the urethra. This catheter served as a model for the new urethra. The diameter of the urethra was retained in all three cases. In one case the anatomical continuity of the urethra could be demonstrated after a lapse of six months from the time of transplantation.

2. In two cases of blepharoplasty restitution of the removed conjunctiva could be positively established.

3. One case of rhinoplasty and one case of meloplasty. In canals bougies and catheters must be resorted to for a variable period subsequent to operation, on account of the contraction of tissues surrounding the new mucous membrane. Transplanted mucous membrane remains most permanent in those places where it borders on mucous membrane.

Discussion.—Prof. THIERSCH (Leipzig) remarked the results of Wölfler were an important advance concerning transplantation reported in a former congress, of the skin of the negro to a white person. or vice versa, he had stated that the transplanted skin retained its color. This subsequently was proven erroneous. The transplanted negro skin in time became white, and vice versa. Histological study by Karg revealed that the belief that the pigment forms in the rete cells and is reproduced is incorrect. Pigment is brought to the rete by wandering cells loaded with pigment from the deeper strata. Therefore, it follows that white skin transplanted to the negro must become pigmented, while the contrary becomes true when the pigmented skin is cut off from its supply of pigment. A case of the speaker in which a defect of the mucous membrane in the mouth was replaced by the skin of the cheek and on which hair continued to grow toward the buccal cavity seems to question the validitv of the doctrines of Virchow, that cells conform to their surrounding.—*Beilage zur Centralblatt f. Chir.*, 1888, No. 24.

VI. The Histological Phenomena Involved in the Union of Peritoneal Folds. By DR. ERNST FRASER (Erlangen.) In this experimental work the author used guinea pigs, rabbits, dogs and cats. By an original method folds of intestine were brought into contact with each other in such a manner as to cause a union over a broad surface of peritoneum of the intestine or intestine and abdomen. Peritoneal surfaces thus opposed may unite (1) By direct union of one endothelial surface with the other. Here we find under the microscope with the highest powers simply one endothelial surface opposed to the other—absolutely nothing else. These surfaces cannot be pulled apart without disturbing anatomical relations with the subserosa. This shows some actual union. No wandering cells or exudate is found. The author theorizes that this union is caused by an interweaving of the endothelial elements of both surfaces by means of spindle shaped processes; this mode of direct union may be seen after space of 36 hours. In the second form of union (2) The layers of apposed endothelium are first thrown off and there is a union between the subendothelial layers of the peritoneum. The endothelium is first noticed to become swollen, to proliferate and partly disintegrate so that there may be formed two or three layers of endothelial cells. The proliferated cells have a more cubical shape than the original endothelium. Karyokinesis is seen. But there is no marked presence of wandering cells. The subendothelial layers unite by means of their spindle-shaped elements having numerous processes. These connective tissue elements (Fibroplasts of Ziegler and Neumann) have already been described. Their processes become continuous with the fibrillæ of the new formed connective tissue. These spindle-shaped cells with many processes proliferate to a marked degree. In some spots this proliferation is more marked than others, where there is no direct union of the